

## WHAT IS CLAIMED

1. A homogenization valve having:  
an outer case;  
a homogenization mechanism contained in the outer case and having at least one  
5 homogenization device; said at least one homogenization device defining a high pressure  
chamber in communication with a channel for feeding a fluid under high pressure to be  
homogenized, a low pressure chamber in communication with a channel for discharging  
the homogenized fluid under low pressure; said high pressure chamber being in  
communication with said low pressure chamber through a port for the blow-by of said  
10 fluid;  
said valve wherein comprises at least two distinct homogenization devices connected with  
a same feeding channel and with a same discharge channel.
2. A valve as claimed in claim 1, wherein said homogenization devices have cylindrical  
shape and are circumferentially positioned about a central axis, distanced from each other  
15 by  $360^\circ/n$  where  $n$  is the number of homogenization devices.
3. A valve as claimed in claim 1, wherein each homogenization device has:  
a movable assembly housed in a cavity of the outer case and having a lower piston  
defining with the inner surface of a compartment the high pressure chamber and an upper  
piston defining the low pressure chamber with the inner surface of an additional  
20 compartment; said chambers having the shape of cylinders with annular cross section;  
a ring or impact head, radially projecting from the lateral surface of said movable  
assembly and at least partially superposed to a projection of a passage head, defines a  
blow-by port together with said projection.
4. A valve as claimed in claim 3, wherein said movable assembly is capable of axially  
25 sliding in both direction within said cavity, constituted by various elements with

cylindrical cavity superposed according to a longitudinal axis, by actuating means, to control the amplitude of the blow-by port.

5       5. A valve as claimed in claim 4, wherein said actuating means has a hydraulic or pneumatic cylinder, connected to a plate that is operatively active on the movable assembly of all the devices.

6. A valve as claimed in claim 1, wherein the homogenization devices are connected to the feeding channel by means of radial union fittings facing said feeding channel in positions that are circumferentially distanced from each other by  $360^\circ/n$  where  $n$  is the number of homogenization devices.

10       7. A valve as claimed in claim 1, wherein the homogenization devices are connected to the discharge channel by means of axial union fitting facing said discharge channel in positions that are circumferentially distanced from each other by  $360^\circ/n$  where  $n$  is the number of the homogenization devices.

8. A valve as claimed in claim 1, wherein said feeding channel is centrally positioned.

15       9. A valve as claimed in claim 1, having a movable assembly constituted by an upper piston and a lower piston, in turn constituted by a set of elements.

10. A valve as claimed in claim 9 wherein the set of elements in the case of the lower piston comprises: an appropriately contoured cylindrical body provided with a compartment for housing a bushing or bearing made of frictionless material and locked  
20       in turn by an element mated with the cylindrical body and the bushing and fastened to the cylindrical body by means of a connecting element; and in the case of the upper piston it comprises an appropriately contoured cylindrical body provided with a compartment for housing a bushing or bearing made of frictionless material and locked in turn by an element mated with the cylindrical body and the bushing and fastened to the cylindrical  
25       body by means of a connecting element.

**11.** A valve as claimed in claim 9 wherein elements for guiding the movable assembly are integrated therein to prevent the contact between metallic surface during its motion.